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AMSAT NEWS SERVICE
ANS-190

ANS is a free, weekly, news and information service of AMSAT North America,
The
Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in
designing, building, launching and communicating through analog and digital
Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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ANS-190 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 190.01
  From AMSAT HQ SILVER SPRING, MD.
July 8, 2012
To All RADIO AMATEURS
BID: $ANS-190.01

New AO7 Distance Record Set Twice This Week

On July 2 at 0955Z Bill Dzurilla, NZ5N operating from Slovakia as OM3BD (grid JN88) reported a successful contact via AO-7 Mode B with Wyatt Dirks, AC0RA (grid EN31). The GPS-measured distance between grids JN88 and EN31 is 7849 km. Bill wrote, "Wyatt did all the hard work by waking up at 0300 his time, driving to a hill an hour away from his home, setting up his station, and working me before sunrise. It appears that an even longer distance is attainable, and Wyatt is looking for a suitable place from which we can try before I leave Slovakia in mid-July."

Prior distance records set via AO-7 included:
+ PY5LF and ZS6BB 7630 km
+ PS8RF and ZS2BK 7694 km
+ K3SZH and PY2OV 7738 km
+ ZS6BB and EA6SA 7766 km
+ PY5LF and K3SZH 7843 km
+ OM3BD and AC0RA 7849 km (July 2 record with AC0RA in grid EN31)
+ OM3BD and AC0RA 7903 km (July 4 record with AC0RA in grid EN41)

On July 4, Wyatt, AC0RA woke up early and this time drove 150 miles to EN41 and set up his portable station. A contact, lasting 30 seconds, with OM3BD extended the distance record to 7903.55 km.

The theoretical maximum range of AO-7 is estimated at 7907 km.

Recordings, pictures, and further info at
http://qsl.net/nz5n/AO7record.htm.

[ANS thanks and congratulates Bill Dzurilla, OM3BD/NZ5N and
Wyatt Dirks, AC0RA for the above information]

Italian HF Special Event Commemorates Apollo Space Program

ARI, the Associazione Radioamatori Italiani, and their club station IQ1TW announced a special operating award "Apollo Space Program - >From the Earth to the Moon" for contacts between July 1 - July 31, 2012. This is to commemorate and keep alive the memory of the space program which has revolutionized the life of mankind.

To qualify for the award you need to have confirmed contacts with the ARI Headquarters Station IQ1TW and any three stations from this list: IZ1UMD, IZ1RFU, IZ1XBB, IZ1WVX, IZ1LBH, IK1WGZ, IZ1RGY, IZ2SMV, I1MXI.

On July 20, the anniversary of the first moon landing, a confirmed contact with IQ1TW (without the necessity of the other 3 contacts) will qualify you for the award.

The special event stations will operate with 200 watts using dipole and vertical antennas.

Full details, including a list of the planned HF operating frequencies and modes, log and confirmation information, rules, and application instructions are posted on the ARI web pages:
http://aritortona.xoom.it/

[ANS thanks Associazione Radioamatori Italiani and the DXNL Bulletin #1786 -Jun 27, 2012 - for the above information]

Listen for ARRL TI-2: Space in the Classroom Satellite Contacts

The ARRL Teachers Institute - Space in the Classroom is this coming week - July 9-12. The Institute will meet in Dayton, Ohio and is sponsored by the Dayton Amateur Radio Association. Additional support from ARRL ETP donors and Yaesu make this program possible.

The TI-2 Space curriculum focuses on the nuts and bolts of setting up and operating a satellite ground station. This serves as excellent preparation for a scheduled contact with the ISS through the Amateur Radio on the International Space Station (ARISS) program. But it also provides instruction for continued use of satellites and other man made space assets to explore naturally generated signals, space and a variety of topics.

The course is 4 days: the first half will be setting up and learn-

ing to operate the ground station, the second half will be practice making satellite contacts and instruction in using space borne assets in the classroom. Participants will receive all the equipment necessary to set up a basic satellite ground station.

Matt Severin, N8MS will be instructing the Teachers' Institute. He will have 8 teachers learning how to set up and operate ground stations. They plan to operate from about 1200 to 2000 UTC each day, give or take a few hours. Our primary amateur radio satellites will be AO27, SO50, FO29, and VO52. They will try to capture data and telemetry from the many cubesats currently operating. Amateur satellite operators are invited to take a moment to say hello and work a few of the teachers in Matt's group.

Full details of the ARRL TI-2: Space in the Classroom program can be found on-line: http://www.arrl.org/ti-2-space-in-the-classroom

[ANS thanks the ARRL and Matt Severin, N8MS for the above information]

University of Florida SwampSat CubeSat Plans for December 2012 Launch

A cubesat called SwampSat, built by students at the University of Florida, was recently unveiled. They also demonstrated the operational satellite to Florida's Lieutenant Governor.

SwapSat is planning on a ride to orbit on the SpaceX Falcon 9 rocket into a 450 km orbit with an inclination of 45 degrees in the December 2012 timeframe.

The SwampSat downlink will transmit 1 watt of RF on 437.385 MHz, 1200 bps AX25 packet radio. The University of Florida video of SwampSat can be viewed at:
http://www.youtube.com/watch?v=5ij3Vyjwg&feature=player_embedded

For more information see also:
http://www.amsat-uk.org/?p=17
http://www.amsat-uk.org/?p=64

UF shows off its small satellite:
http://www.gainesville.com/article/20120406/articles/120409715

Gator Amateur Radio Club http://www.gatorradio.org/
University of Florida Small Satellite Design Club (SSDC)
http://www.ufsmallsat.com/

[ANS thanks the University of Florida and AMSAT-UK for the above information]

Satellite Presentation at University of Missouri on July 20

Attention amateur radio operators near Kansas City, Missouri!

On July 20, the Hams in Space Team will be giving their Satellite Presentation at the University of Missouri, Kansas City's Communiversity. Communiversity is the University's Community Education Program available to anyone from the community who wishes to attend.

Randy Schulze, KD�HKD wrote, "We're preparing this presentation to be enjoyed not only by Licensed Hams but also to members of the general community as a means of putting Amateur Radio's best foot forward, through information about at least one of the fun and amazing things that can be done with Ham Radio! If you plan to attend this presentation, please register early. If the anticipated attendance exceeds the capacity of the presently scheduled class room, the University may be able to make arrangements to move the presentation to a larger class room."

The University of Missouri Kansas City Communiversity Web Site is: http://www.umkc.edu/commu. You will find all of the registration information there.

Randy concluded, "So spread the word to your friends; Hams and Non-Hams alike! Register to attend the Hams In Space Presentation at the University of Missouri, Kansas City, Communiversity, and help put Amateur Radio's Best Foot Forward while at the same time supporting an Outstanding Community Service!"

The class schedule is:
   7:00 PM, Friday, July 20, 2012
   Communiversity; University of Missouri, Kansas City
   Flarsheim Hall, Room 260,
   5110 Rockhill Road
   Kansas City, Missouri
   http://www.umkc.edu/commu/

The Hams in Space web page can be found at:
http://hamsinspace.com

[ANS thanks Randy Schulze, KD�HKD for the above information]

Near Space Balloon Flight Ham AK4JG Named Newsline Young Ham of the Year

ERIN KING, AK4JG, NAMED 2012 AMATEUR RADIO NEWSLINE�
"YOUNG HAM OF THE YEAR"

(Santa Clarita, California) - Erin King, AK4JG, a 17-year-old from Columbus, Georgia, who re-founded her high school's radio club and then lofted a ham radio-carrying balloon to over 90,000 feet, recovered the flight data and used it to produce a truly striking video of that flight, has been named as recipient of the 2012 Amateur Radio Newsline Young Ham of the Year Award.

Erin is the daughter of Paul, K4ETY, and Patricia King. She has two siblings: Brandon, age 16 and Rachel, age 15. Erin became a licensed radio amateur in 2009 and now holds an Extra Class license. She is a member of the ARRL, the Columbus Amateur Radio Club, and the Russell County Radio Club. She enjoys operating on local VHF and UHF repeaters as well as phone and digital modes on the High Frequency amateur radio bands. She is looking forward to mastering Morse Code as her next amateur radio challenge.

Erin became interested in amateur radio after joining a club at her high school dealing with robotics and then ham radio-equipped high-altitude balloon launches. This school group has participated in FIRST Robotics competitions, and Erin has twice been Team Lead for Programming. The club also launches several high-altitude balloon

missions each year, in a program called DREAMS. They have flown various scientific experiments as part of these missions, in addition to planning, building, and integrating radios, Global Positioning System (GPS) units and TNCs to track and recover the balloons. To facilitate these activities, the group's sponsor, Luther Richardson, KI4AOJ, has encouraged the students to obtain their amateur radio licenses.

A subset of this group, including Erin, has participated in the Massachusetts Institute of Technology's (MIT's) "InvenTeam" competition, designing and building a portable lightning detector and early warning system. In addition, Erin re-started the Columbus High School Radio Club and served as its president for the past two years. The club was active in the 1950s and '60s, and Erin's great-grandfather (the original K4ETY) was one of its mentors at that time. The new club obtained the callsign W4CHS (Columbus High School) and has been active on the air.

Erin's involvement with amateur radio and FIRST Robotics has helped fuel her interest in science and engineering. Last year, she applied for early admission to both Georgia Tech and MIT; she was accepted to both and will be attending MIT this fall.

Inside the shiny tube which contained Erin's MIT acceptance letter was a note suggesting that the students "hack" their tubes, meaning to do something cool with them, in a long-standing tradition of MIT hacks or stunts. Erin chose to send her tube to near-space.

Drawing on her ballooning experience, Erin planned, built, integrated, and tested a complete new tracking setup to fit into the very small shipping tube. The payload consisted of two GPS units, two custom-made antennas, one Argent Data OpenTracker+ kit (which Erin built), one handheld radio, and a fellow ham's Byonics Pocket Tracker, a self-contained 100-milliwatt tracker/radio combination in an Altoids® tin. Erin also talked her mother into letting her use mom's brand new GoPro Hero HD video camera.

With the assistance of a group of hams from the Columbus Amateur Radio club, Erin launched her balloon from Lumpkin, GA. A couple of hours later, she and the tracking team successfully recovered it, along with the complete HD video record of the flight. Erin took this video, as well as other photos and videos taken of the launch activities, and compiled it into an 8-minute presentation, complete with background music. She posted it to YouTube, and put a link to it on the MIT hack-the-tube site. According to YouTube statistics, Erin's video has been viewed thus far in excess of 82,500 times. (see <http://tinyurl.com/ak4jg-space-video>).

This past May, Erin was invited to participate in no less than three forums and sessions at the 2012 Dayton Hamvention. These included the 25th anniversary "Youth Forum," the "Ham Radio Town Meeting" and an "ARRL Expo" presentation where her video was screened.

AWARD CEREMONY

The 2012 Amateur Radio Newsline® "Young Ham of the Year Award" will be presented on Saturday, August 18th at the Huntsville Hamfest in Huntsville, Alabama. As the 2012 "Young Ham of the Year," Erin will receive -- courtesy of Yaesu USA -- an expense-paid trip to the Huntsville Hamfest, along with a gift of Yaesu brand ham radio equipment. CQ magazine will treat her to an expense-paid week at Spacecamp Huntsville, and will present Erin with a variety of CQ products. Amateur Radio Newsline® will provide Erin with a commemorative plaque at the award ceremony. Once again, the cost of year's plaque has been

underwritten by Dave Bell (W6AQ), President of DBA Entertainment Inc., Hollywood, California. Heil Sound Ltd. will also be presenting Erin with a ham radio-related gift.

[ANS thanks Amateur Radio Newsline for the above information]

ARISS Status - 2 July 2012

1. Virginia Contact to be Rescheduled

The ARISS contact that was scheduled with the Virginia Air and Space Center in Hampton, Virginia on Tuesday, June 26 was not successful due to ground station issues. ARISS will try to re-schedule this event for the week of July 23.

2. ARISS Contact Featured at STEM Conference

On Thursday, June 28, an Amateur Radio on the International Space Station (ARISS) contact was held between Expedition 30/31 crewmember Andr Kuipers and students attending the STEM Solutions Youth Summit which was part of the U.S. News STEM Solutions 2012 conference in Dallas, Texas. Telebridge station K6DUE in Maryland provided the radio hookup. The contact, a highlight of the event, provided youth the opportunity to ask Kuipers about life and work in space. Leland Melvin, Associate Administrator for Education, and Charlie Bolden, NASA Administrator, attended the conference.

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS